

EaseUS[®] **Todo Backup**

User guide



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Welcome

Overview

Thanks for using **EaseUS Todo Backup**. It is an integrated solution for data protection and widely used in personal PC, business workstation and server. With its efficient and stable features, all your important data will be well protected. Not only the Operating System partition, but also includes documents, photos, music and financial data, etc.

With the image file generated by **EaseUS Todo Backup**, you can deal with almost all computer software troubles, such as the computer boot failure, system crash, partition/disk corruption, virus infection and data loss. As long as you have a corresponding image file, all these problems will be easily solved, saving your hours of hard work to reinstall computer and getting system running again in no time.

How to use this manual

There are 2 kinds of user manuals available, one is in PDF format, and the other is built-in product and wrote in GTK.

The PDF user manual will be available after our product installed. You can read it without launching our product, and it can be located under BIN folder in the installation path of our product. Or if you are using free edition which doesn't bring this manual, you can download it from the following link:

http://www.todo-backup.com/download/docs/User_Guide.pdf

While the GTK user manual is opening for all editions, you can call it by pressing F1 when using our product. It is especially useful if you confuse about an option or a feature, directly press **F1** to call this manual with related instruction displayed.

This manual consists of 4 main sections. You may directly refer to the section you are interesting in by the simple instruction for each section below.

1. Welcome

A brief introduction for EaseUS Todo Backup and some basic information about the new features in the latest version.

2. Getting started

This section indicates the hardware and system requirements of EaseUS Todo Backup, supported storage device and how to install/uninstall.

3. Using EaseUS Todo Backup

The detailed step-by-step instructions for each function and some operation examples are under this section. The range of this section starts from [Quick start](#), and ends with [Pre-OS](#).

4. Other useful information

You may find a possible solution for a known BUG/software defect in [Troubleshooting](#).

The explanations for some technical terms are available in [Glossary](#).

If you still cannot find what you need in this help, please contact our [Support](#) team for more information.

New in EaseUS Todo Backup 3.0

In order to help users complete backup task/plan more efficiently, we have made a great improvement in version 3.0, nearly 10 new functions added and a great deal of changes for old features. All the news is listed below. You can also get some detailed instruction for each of them in the following sections.

New added features

Differential file backup - back up changed files only since last full file backup.

Differential disk/partition backup - back up changed files only since last full disk/partition backup.

Dynamic volume backup - select volume(s) on dynamic disk as backup source.

Dynamic volume clone - select volume on dynamic disk as clone source.

Backing up Exchange server - support backing up Exchange server in data storage.

Backing up MS SQL - support backing up MS SQL database.

Creating task in Windows explorer - Partition/data can be directly backed up by right clicking it in "My computer".

New image conversion tool - an independent tool to convert PBD image file to the file format of VMware or VirtualPC.

Baking up data to Tape - support saving image file to tape.

Easy system backup/recovery - Backing up and restoring system within several simply mouse click.

Improvements

- You can manage your task/plan much easier than before by just right clicking it in Backup management.
- Our product can be directly used after installation, you don't need to restart your computer any more (by directly double clicking on the installation file of 3.0 instead of uninstalling previous version at first).
- Allow to turn the computer off after task execution finished.

- Provide a new rule to remove old image files, based on image version.
- You can insert some regular differential backups into an incremental plan.
- You can get more information about the finished plan from the subject of notification email.
- Improve the compatibility when recovering to SSD.
- Simplify the installation wizard.
- Adjust interface layout to fit new added functions.
- Integrate Schedule backup into normal backup wizard.
- The estimated time under progress bar displays more accurately now.
- Optimize password authentication when backing up to network path.
- Add some default value in backup wizard to reduce your mouse click.

Besides these obvious improvements above, we also optimized some algorithm to ensure efficient and rapid task/plan execution. We believe you will have the feeling backup job can be so easy with the new version of our product.

Getting started

Hardware requirements

EaseUS Todo Backup requires a computer with at least X86 or compatible CPU with main frequency 500 MHz, a standard PC system with mouse, keyboard, color monitor, and **1GB RAM**, CD-R/RW, DVD-R/RW, DVD+R/RW or DVD+R DL drive for bootable media creation.

System requirements

EaseUS Todo Backup supports the following operating systems: Windows 2000 SP4, Windows XP, Windows Vista, Windows Server 2003/2008 and Windows 7 (including the latest update SP1).

Supported file systems

EaseUS Todo Backup supports the following file systems: FAT12, FAT16, FAT32 and NTFS. Other file system will be listed as **Other** in our product, when backing up or cloning them, our product will automatically perform the operations in Sector by sector mode.

Supported hard disk types

IDE, EIDE, SATA, ESATA, ATA, SCSI, iSCSI, USB 1.1/2.0/3.0 disk (you need to install the driver of USB 3.0 at first if you want to work with it under WinPE environment), and Firewire disk are all supported by EaseUS Todo Backup. The max supported disk capacity is **2TB**. EaseUS Todo Backup can support 32 disks at most.

Backing up to CD-R/RW DVD-R/RW DVD+R/RW DVD+R DL is also supported.

Install and uninstall

To install EaseUS Todo Backup:

1. Double click EaseUS Todo Backup setup file. The setup wizard will be launched and click **Next** to start installation.
2. Confirm **License Agreement**. If you accept the terms, select **I accept the agreement** to continue.
3. Choose a location where to install the software, install to the default folder by clicking **NEXT**, or click **Browse** to select a specified location.

4. Set a location for the **shortcut** in Windows start menu.
5. Tick the related option to create a shortcut on your desktop or Windows quick launch bar. Also you can tick them both.
6. Setup wizard asks for a system reboot to complete the installation.

Uninstall EaseUS Todo Backup:

1. From the Windows Start menu, select **Start > Settings > Control Panel** (From the Windows Start menu, select **Start > Control Panel** in Windows 7/Vista)
2. Double-click **Add/Remove Programs**, and select **Change or Remove Programs** (Double-click **Programs and Features** in Windows 7/Vista).
3. Select EaseUS Todo Backup, and click Remove to uninstall the related components (Select EaseUS Todo Backup from the list and click **Uninstall** in Windows 7/Vista).
4. Or select **Start > All Programs > EaseUS Todo Backup 3.0 > Uninstall EaseUS Todo Backup 3.0**. Then, follow the instructions of the uninstall wizard.

Edition comparison

There are 7 editions of **EaseUS Todo Backup** in all. They have different authorization, available features and usable scope.

Free edition - free for home and commercial users and cannot support Windows server operating system. Some features limited.

Workstation edition - commercial version for desktops and laptops end users, with more features available than Free edition.

Server trial edition - free of charge for 15 days' evaluation with Linux bootable disk provided, comparing to full Server edition, some advanced features are limited.

Server edition - commercial version for Windows server, only few features are limited.

Advanced server trial edition - free of charge for 15 days' evaluation with Linux bootable disk provided, comparing to full Advanced server edition, some advanced features are limited.

Advanced server edition - this edition can support more Windows server components than basic server edition. Such as Exchange server, MS SQL and Tape.

Technician edition - providing technical service with unlimited usage or for internal use up to 10 machines. Only snapshot is unavailable.

Features Comparison among these editions

Detailed information about the feature comparison of different editions, please see the table below.

➤ The * symbol in the table refers to the users of Free and Trial edition can also enjoy

Recover to dissimilar hardware and **WinPE bootable disk** after installing Windows AIK and creating a WinPE bootable disk/exporting a WinPE ISO image file.

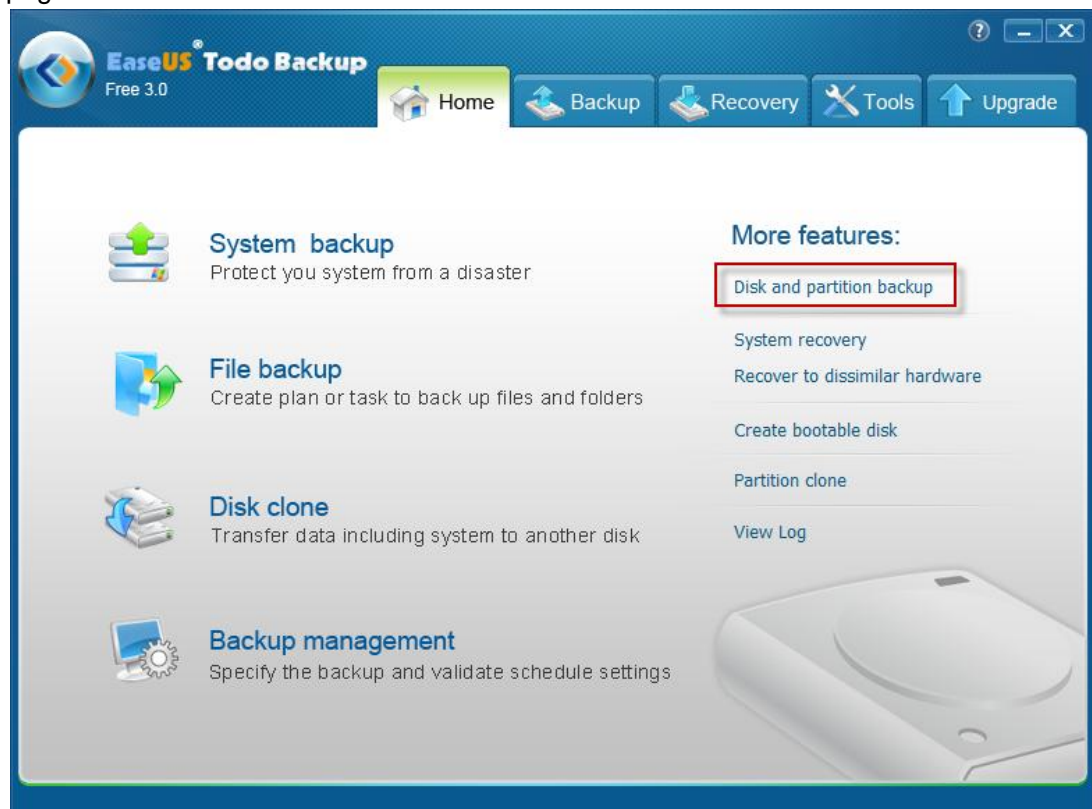
- The red tick means the trial version of the related edition doesn't have this feature before Windows AIK installed.

	Free	Workstation	Server	Advanced server	Technician
Disk and partition backup	✓	✓	✓	✓	✓
File backup	✓	✓	✓	✓	✓
Incremental backup	✓	✓	✓	✓	✓
Differential backup	✓	✓	✓	✓	✓
Back/clone up dynamic volume	✓	✓	✓	✓	✓
Create schedule	✓	✓	✓	✓	✓
Backup system in fast way	✓	✓	✓	✓	✓
System recovery	✓	✓	✓	✓	✓
Power off after operation	✓	✓	✓	✓	✓
Delete image based on version	✓	✓	✓	✓	✓
Install without reboot	✓	✓	✓	✓	✓
Snapshot		✓			
Recover to dissimilar hardware	✓ *	✓	✓ *	✓ *	✓
Backup MS SQL Server				✓	✓
Backup Exchange Server				✓	✓
Back up to tape			✓	✓	✓
Tape management			✓	✓	✓
WinPE bootable disk	✓ *	✓	✓ *	✓ *	✓
Enable Pre-OS	✓	✓	✓	✓	✓
Convert image tool	✓	✓	✓	✓	✓
Backup in Windows Explorer	✓	✓	✓	✓	✓
Support VSS			✓	✓	✓
Support Microsoft server OS			✓	✓	✓

Quick start

The frequently used functions are listed under **Home** page. Our product will automatically show this page after it is launched, so the **Home** page can be seen as a collection table for the shortcuts of all commonly-used features. You can directly start most of your backup tasks from this page.

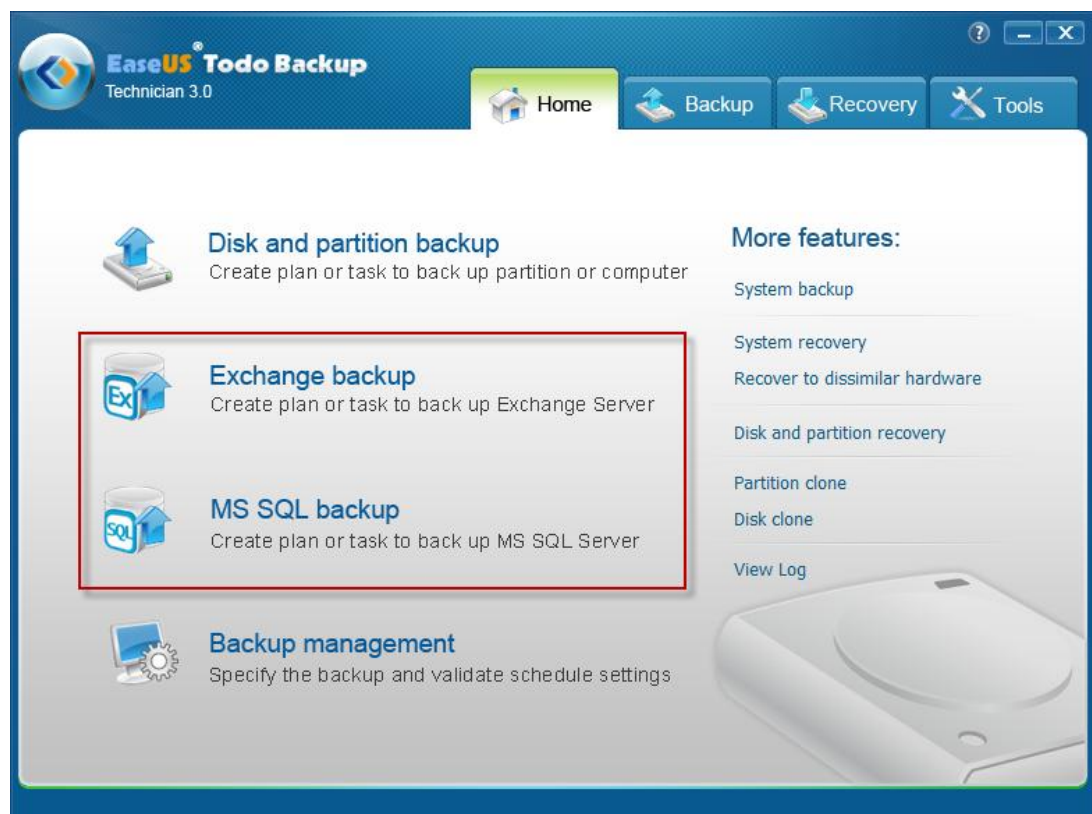
Since the available features in different editions are not exact similar with each other, so the **Home** page may not always the same as others. Such as for **Free** edition, the **Home** page is:



Please notice that there is no more individual **Schedule backup** feature existed on this page, in order to simplify the backup wizard, we have integrated **Schedule backup** and normal task into one process. Which means you can click **Disk and partition backup** in red box to start setting a plan with version 3.0, you just need to specify current task execute later or in a regular time interval in the wizard to make it as a plan.

The other 3 editions **Workstation**, **Server** and its trial version also have the same Home page as **Free**.

For an advanced server manager, more features are required to back up the used server tools. So in **Advanced server** edition and **Technician** edition, the 2 new added useful advanced server backup tools will be available under **Home** page. You always need to click **Disk and partition backup** to start a plan in these 2 editions.



Backup

Backup or the operation of backing up always means creating copies of important data, with these additional copies, you can get your data back to previous health status after suffering an unexpected computer disaster. So the main purpose of backup operation can be considered as that to recover data as a reaction to system failure or data loss.

Compared to Clone

Sometimes, people might consider that Clone can work as well as Backup, but please notice that backup will compress all selected data into one PBD image file after backup process, while Clone directly transfers all selected data to another location, which makes the feature more useful when an old smaller hard disk needs to be replaced with a new larger one. But if you just want to create some reserved copies, backup will be still the better choice.

In order to ensure a rapid and successful backup process, please try to close other applications as possible as you can before starting the operation, and never try to save the image file to the partition/disk which you are intending to image.

System backup

This feature provides the easiest and quickest method to back up your operation system. You can finish the system backup task in less than 4 times mouse clicks with this feature.

1. Click **System backup** under **Home** page to start the task.
2. Specify a path where to save the generated system image file, and then clicking **Proceed** to start backing up the system.

A separate system backup task can be done efficiently with this feature, but for a long term system backup plan, such as you need to create a system image at a specific time every day, to create a system backup schedule will be still the better choice.

Tips:

- You cannot create an incremental or differential image for the quick system backup task, it can be only used as an individual image file.
- There can be only one version of quick system backup image saved in one folder, our product will ask you whether to replace the old one if you intend to save the image to the path where already has one version existed.

Full disk and partition backup

Full backup will include all the data matched your selection into the generated image file. To create a full disk(s) and partition(s) task/plan, click **Disk and partition backup** in **Home** page.

1. Select **New disk and partition backup** and specify the task name to start a new full disk and partition backup, an accurate task name and some appropriate descriptions might help you to distinguish desired task from multiple tasks much easier when you want to recover it.

About the two options [Incremental backup](#) and [Differential backup](#) under the description box, please refer to related instruction paragraph to get more information.

2. Select backup target, the system partition is selected by default if this is your first time to operate this feature. Specifying multiple partitions on different hard disks or more than one hard disk as backup source is allowed. Ticking **Sector by sector backup** will create an image with all sectors on the selected partition(s)/hard disk(s) backed up, to know more, please see [Sector by sector backup](#).
3. Decide where to save the image file. You can select from the graphic directory tree or manually input a path in **Destination** box and click **Goto** to open the path, then choose an existing folder to save the image file or **Create** a new folder to do so.

Tick **Check backup image integrity after backup** option, EaseUS Todo Backup will automatically [check the image file](#) after backup process finished.

In order to save disk space for a long period time of backup plan, you can specify [Existing images cleanup rules](#) to delete outdated image files in a regular time.

Click **Options** to set advanced parameters for current backup task, such as assign a password for image file, send a notification email after the backup, compress image file to save disk space, etc. For more information, see also [Options](#).

4. Specify to run the backup immediately or in a schedule. More about setting a plan, please refer to [Schedule setting](#).
5. Confirm every detail about current task, click **Proceed** to implement it, click **Cancel** to exit the task or click **Back** to modify those unsatisfied parameters.

Full file backup

To create a full backup for specified file(s) or folder(s), click **File backup** under **Backup**

page.

1. Select **New File backup** and specify the task name to start a new full file backup, an accurate task name and some appropriate descriptions might help you to distinguish desired task from multiple tasks much easier when you want to recover it.

About the two options [Incremental file backup](#) and [Differential file backup](#) under the description box, please refer to related instruction paragraph to get more information.

2. Select backup targets, file(s)/folder(s) can be selected based on directory structure or file types.

Backup selected files - manually select file(s)/folder(s) to backup. The basic directory of the computer will be displayed in a smaller window on the left hand, clicking on a directory to expand it and search individual files need to be backed up, or ticking the box in front of a directory to select all sub-directory under it as backup target. The bigger window on the right hand will show the details of current selected path.

Tips:

- If some files locate in Network share folder is selected in this step, then current task can only be executed immediately and cannot specify in a schedule.
- The access permission is required if you want to back up some network share files.

Backup selected types - specify file type(s) to backup. In the selection window, some frequently-used file types have been included and divided into 6 categories, clicking on name to expand a category and select some certain file types, or tick the box in front of a category name to select all file types under this category as backup target.

If some other file type(s) which is not included in default list need to be backed up, using the buttons under the selection window to manage new file type(s).

Add group - add a new category, the name and icon of this new group can be customized.

Add type - add a new file type. Specify a group where the new added file type belongs to, and the extension, description and icon attributes of this new file type can be also customized in a pop-up window.

Delete - delete previous added group or file type, the default categories and file types cannot be removed.

Select all - select all categories, including the new added groups.

Deselect all - deselect all categories, including the new added groups.

Invert select - make all unchecked categories and file types selected, and the checked categories and file types deselected, including the new added groups.

3. Decide where to save the image file. You can select from the graphic directory tree or manually input a path in **Destination** box and click **Goto** to open the path, then choose an existing folder to save the image file or **Create** a new folder to do so.

Calculate - estimate the amount of required space for selected files, which can help you determine whether the destination path is big enough to save the generated image file.

In order to save disk space for a long period time of backup plan, you can specify [Existing images cleanup rules](#) to delete outdated image files in a regular time.

Ticking **Check backup image integrity after backup** option, EaseUS Todo Backup will automatically [check the image file](#) after backup process finished.

Preserve file security settings in backup - tick this option will keep the security attribute of NTFS encrypted file. Otherwise, the security attribute will lose after the process.

Click **Options** to set advanced parameters for current backup task, such as assign a password for image file, send a notification email after the backup, compress image file to save disk space, etc. For more information, see also [Options](#).

4. Specify to run the backup immediately or in a schedule. More about setting a plan, please refer to [Schedule setting](#).
Please notice that if current File backup set as a schedule, it will be an incremental file plan.
5. Confirm every detail about current task, click **Proceed** to implement it, click **Cancel** to exit the task or click **Back** to modify those unsatisfied parameters

Incremental backup

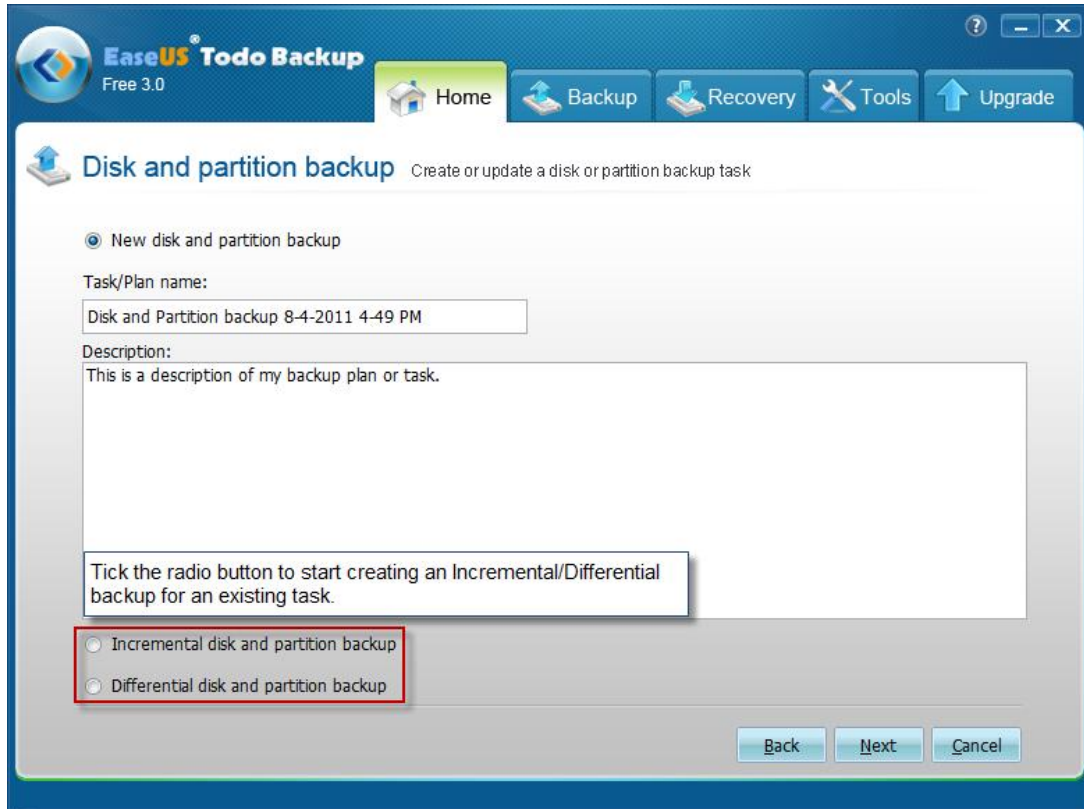
Incremental backup will only back up those files which have been changed since last backup (the "last backup" can be full backup, incremental backup or differential backup). It is especially useful when a task need to be executed with high frequency. This method provides the quickest means of backup, and saving disk space since it only copies the changed files.

1. Click "**Home > Backup > File backup > Incremental file backup**" to create an incremental file image.
Click "**Home > Backup > Disk and partition backup > Incremental Disk and partition backup**" to create an incremental disk or partition image.
2. Select the backup task which you want to create an incremental file for.
3. Confirm every detail about current task, click **Proceed** to implement it, click **Cancel** to

exit the task or click **Back** to modify those unsatisfied parameters.

Tips:

- Incremental image will inherit all the parameters and options from the based backup task.
- You can still directly start an incremental backup for a backup task from [Backup management](#) by clicking **Run now**.



Differential backup

Differential backup is also a “clear” backup method which saves time and disk space by only backing up changed files. But compared to incremental backup, this method can be only based on a full backup.

1. Click "**Home > Backup > File backup > Incremental file backup**" to create a different file image.
Click "**Home > Backup > Disk and partition backup > Incremental disk and partition backup**" to create a different disk or partition image.
2. Select the based full task which you want to create a differential file for.
3. Confirm every detail about current task, click **Proceed** to implement it, click **Cancel** to exit the task or click **Back** to modify those unsatisfied parameters.

Tips:

- Differential image will inherit all the parameters and options from the based on full

image.

Which backup solution to use

If you still haven't figured out the difference among the 3 backup methods, then you might fail to create an appropriate plan which fits your needs most. So before deciding which backup method to use, we believe you need to know more about each of the backup methods.

Full - all files that match your selection are included into the backup, a full image is in demand if you want to create an incremental or differential plan. It always has the biggest image files generated.

Incremental - this method will only back up the changed files since the last backup, no matter what kind of the last backup is. The incremental plan is more likely a chain. Each of the incremental back up is a necessary link in it. If one of the incremental images in the chain is corrupt, then all the following images based on the corrupt image will become unavailable. Baking up changed file based on last backup always make incremental backup has the smallest image file size.

Differential - baking up the changed files based on the latest or the specified full image. Differential backup directly associates with the based on full image, so if one differential backup is removed or corrupt, others will not be influenced. Differential backup always has medium image size.

We suggest you to choose one of the following three approaches of using the Backup Modes.

Always Full - every time you back up all files, no matter the target files have changed or not. This approach is good when the backup task includes not so large amounts of data, or you don't like to manage multiple images in one task. And deleting old full image will not influence the new generated one.

Full and Incremental - This approach is more widely used than the others, because the incremental backup will only copy the changed files since last backup. When you have a certain amount of files need to be frequently backed up, always creating full will be absolutely time consuming. Create an incremental plan and insert full image in regular time interval in this plan will definitely save time and disk space. However, to recover an incremental image, our product will recover the based on full and all previous incremental images in sequence, which means, you may need more time to recover an incremental image.

Full and Differential – An intermediate method between the first two approaches.

Because each differential backup only includes the files changed since last full backup, so it takes less time and space to create the image than “Always full”. But more than the second approaches “Full and Incremental”, the good point is that recovering Differential image only requires the based on full image recovered at first (our product automatically finishes the task when you decide to recover a differential image), which makes this approach has a shorter recovery time than the second approach.

You can choose the proper approach for each of your backup tasks according to the target file size, frequency of file modifications and the size of destination location.

Tip:

If almost all target files appear changed before an incremental backup starts, the incremental backup might has the same size as a full backup would be. If you always has most files changed, let the task be "Always Full" to simplify the recovering.

Dynamic volume backup

The dynamic volume is part of a dynamic disk, this kind of hard disk manages the volumes with LDS database (LDM is an acronym of Logical Disk Manager). Compared with basic disk, dynamic disk can be divided into multiple types of volumes, and most types have advanced features in data storage, such as data redundancy in Mirrored volume, fault-tolerant feature in RAID-5 volume. But on the other hand, dynamic volumes need more complex data structure to achieve these features, this makes backing up dynamic volumes is more difficult to process. But we have improved this regard of our product since version 3.0, now you can backup dynamic volume(s) or the files on dynamic volume with our product.

Baking up dynamic volume(s)

Select **Disk and partition backup** in **Home** page to start the backup wizard. The whole process is nearly the same as a normal disk and partition backup task, so you may refer to [Full disk and partition backup](#) to get more details about all options in each step. The only difference is that when you choose the backup source, all dynamic volumes will be listed under Dynamic Disk, although they may actually located on different dynamic disks.

Baking up files on dynamic volume(s)

Select the files on dynamic volume(s) as backup source, there is no difference between backing up files on dynamic disk and from basic disk (the recovery process is also the same), so you may refer to [Full file backup](#) and [File recovery](#) to get a main idea about how to backup/recover files on dynamic volume(s).

Schedule backup

Specify a task to run later or in a regular time interval, all the backups in the schedule will be executed automatically as long as the computer powers on at the specified time point.

In version 3.0, we integrate Schedule backup into normal backup task, which means there is no separate Schedule backup feature existed any more. For now, to create a new schedule, please select Disk and partition backup or File backup according to the backup target you want to create a schedule for.

Except the step where you need to decide when to execute the task, all other steps in the wizard are exactly the same as Full disk and partition backup and Full file backup. More about each kind of schedule setting, please refer to [Schedule setting](#).

Schedule notification

After schedule backup starts, there will be a tray icon of our product appeared, and a notification box will pop-up. Like the picture below.



Position your cursor on the spinning tray icon, the **Plan name** and **Progress** of current running schedule will show up.



Right click on the tray, you can cancel the schedule by pressing **Stop**, or know more about the product version you used in **About**.

Schedule settings

To meet different backup needs, we provide 5 kinds of methods to run the schedule.

Later - appoint a specific time in future to execute the backup plan.

Daily

Set some specified time point or regular time interval to perform the plan every day. And there are 2 different ways in Daily setting.

Time - execute the plan up to 5 times in one day. Click **Delete** to remove time points in the box and click **Add** to fill some new time points.

Interval - set start time, finish time and interval time for the plan. For example, if you set the start time at 6:00 am, finish time at 10:00 am, and interval time is 2 hours, then the task will be executed three times at 6:00 am, 8:00 am and 10:00 am. You can specify this kind of plan run as an incremental schedule or a differential schedule.

Weekly

Run the plan at specified time of each week.

Weekly - specify the day(s) of a week to run the plan.

Time settings - specify an exact time point on chosen day(s) when to execute the schedule.

You can specify this kind of plan run as an incremental schedule or a differential schedule.

Monthly

Run the plan on specified days every month. The plan can be set based on date or week.

Start - choose exact day(s) of a month to run backup task.

Every - schedule the time by week. For example, run backup task on the first Monday of each month.

An exact time point on chosen day(s) when to execute the schedule is also required.

You can specify this kind of plan run as an incremental schedule or a differential schedule.

Upon event

Execute the plan based on some system event including system startup, system shutdown, user log on or user log off.

System startup - the plan will be automatically executed at system startup.

System shutdown - the plan will be automatically executed at system shutdown
(Currently this option is not available for Windows 7/2008 R2).

User log on - the plan will execute when the user which you used to create the schedule log on.

User log off - the plan will execute when the user which you used to create the schedule log off.

Once a day only - only the first system event will trigger the plan in one day.

Start date - set a date when the plan will be available.

You can specify this kind of plan run as an incremental schedule or a differential schedule.

Besides, if you miss some schedule points due to power failure, computer power off or other reasons, our product will still automatically execute the last missed schedule after computer resumes with the option **If computer is shutdown, run missed backup at system startup** checked.

And select **Appoint daily/weekly/monthly first backup as full/differential backup**

option to make every first backup in the time circle as full/differential for an incremental backup, this will make the whole plan more stable and safe.

Tip:

In order to avoid unexpected interruption when running a schedule, such as log off current account, switch to another user. Our product will require system administrator privilege when creating the schedule. And the current version will automatically obtain administrator privilege. If you have ever set a password for the username which is displayed in the box **Administrator account**, then please input the matched password.

Modify the parameters of a scheduled plan

If there is some parameters in a scheduled task need to be changed, please click [Backup management](#) under **Home** page, and find the plan through name, created time or other information, then click **Edit** to open the modified windows.

Please notice that all the changes made here only take effect for the following plan and will be available after the changes saved. In the pop-up window, the parameters can be modified are listed below.

Details - the name and description of the task can be changed here, and you can switch **Backup mode** among **Full**, **Incremental** and **differential** schedules, know more about the difference between these modes, please refer to [which backup solution to use](#). For a disk and partition schedule, there has an additional option to decide whether the following backups need to be executed in [Sector by sector mode](#).

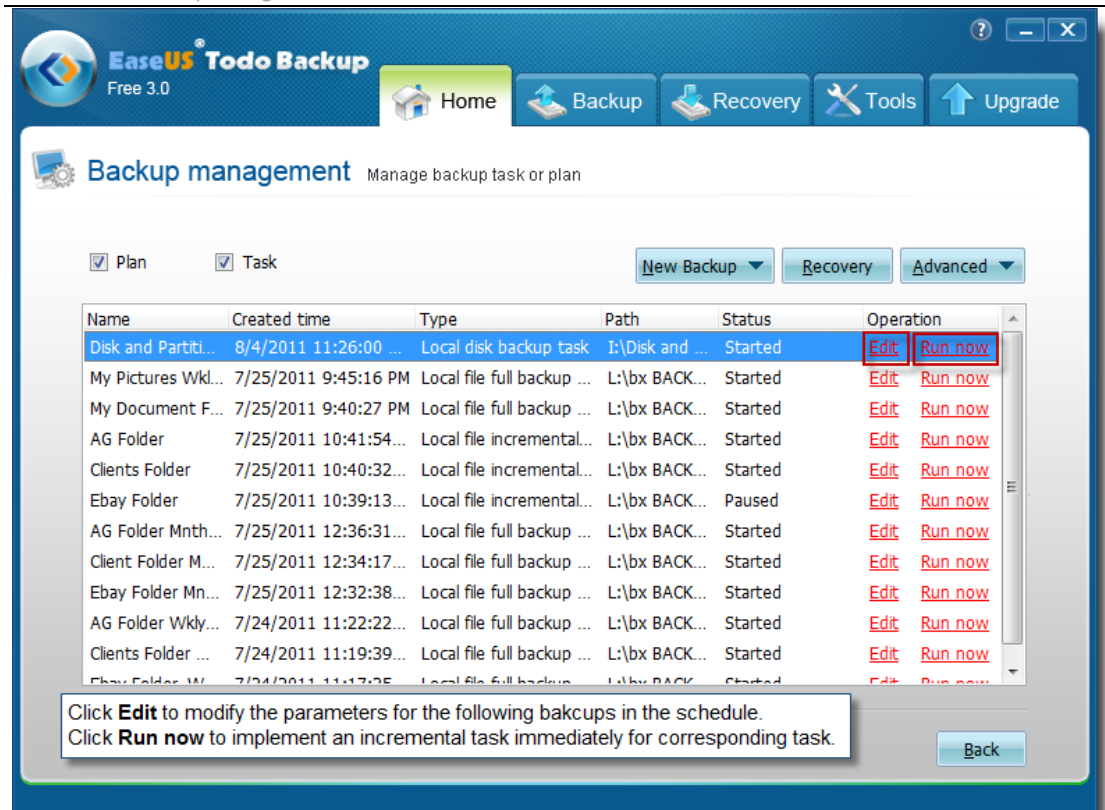
Contents - adding new files into file backup schedule, or decreasing backup content for both disk and partition schedule and file schedule.

Location - you can specify another path to save all latter images, but our product will ask whether to transfer previous image file after this change saved. The next backup will be certainly a full backup in the new location if you refuse to move old image files.

Result and **Image** - information under these two pages cannot be modified. They only display some basic information about the plan.

Schedule - specify new time point to run the schedule, more about how to make the change, please refer to [Schedule setting](#).

Options - in the lower left corner of every page in the edit window, you will see the button [Options](#). There will be another window popped up after clicking it. And in this window, all pages except [Compression](#) and [Password](#) are available and the parameters under them can be modified.



Sector by sector backup

The sector-by-sector backup mode allows you to create an image of all sectors on the selected partition/hard disk. Not only the sectors with data but also the blank sectors will be backed up. As a result, this image will be almost the same size as the disk being imaged, as there will be no data compression, meanwhile, the whole process may take more time than normal backup.

It is still a solution for backing up the hard disk which has logical bad sectors.

Access image in Windows Explorer

Image files can be directly accessed after backup, besides ensuring what are included in the image file, you can also **open, copy and recovery** specified file in the image with this new feature. Recovering selected files to original location or specifying a new location to save the files are both allowed.

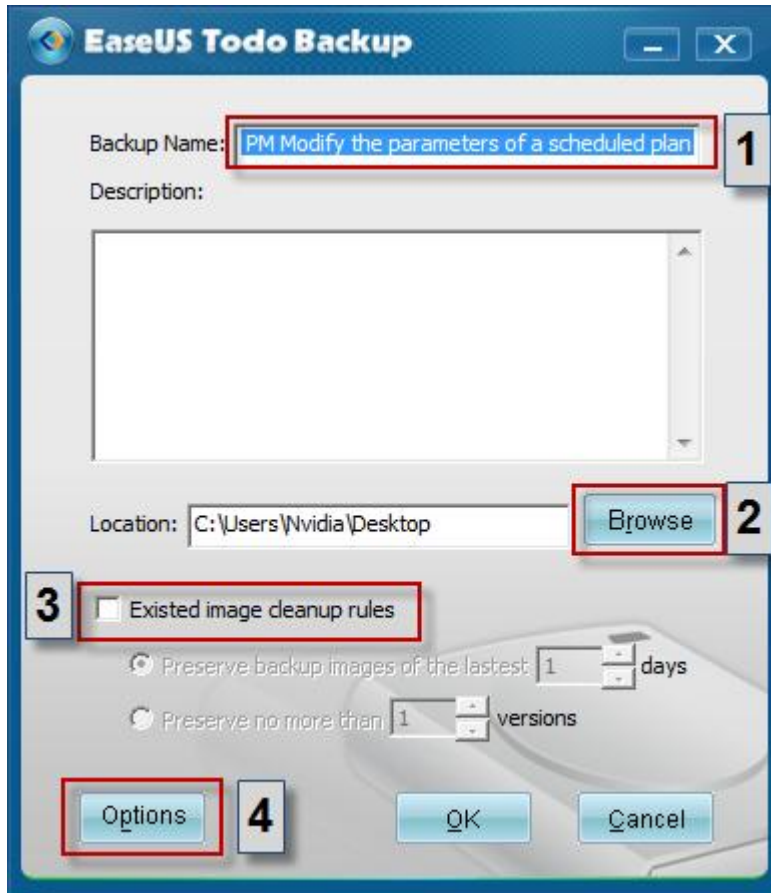
You can double click on the PBD image file or right click it and choose open to browse it. Find the target file, right click it to display the menu, and then do the operation you want.

Tips:

This feature is unavailable under Windows 2000.

Starting backup from Windows Explorer

Since version 3.0, you can directly start a backup task in Windows explorer by right clicking the target and choose **Include in EaseUS Todo Backup** in Windows default right-click menu, this also provides a quick and easy backup method for meeting your backup needs.



There will be a setting box pop-up after including a target in EaseUS Todo Backup, the parameters you can set in the box includes:

1. The name and description for the image file.
2. The destination location where the image files will be saved, you can change the default path by clicking Browse.
3. If you always upgrade the image file, you may need to specify an [Existing image cleanup rule](#) to remove some previous image file.
4. Click [Options](#) to change some advanced parameters.

Tips:

- The current version of our product cannot support creating schedule in this way.
- Please close the main application of our product before starting backup in Windows explorer.
- This feature is not available in Windows 2000.

Shut down computer when operation complete

With this option, you don't need to stay in front of the computer all the time when the operation is running. If you need the computer shut down after the operation finished, just tick the option in the process and leave it alone.

This option is available for all backup, recovery and clone operations. You will find the option under the detailed box in the step where the option actually implements.

Existing images cleanup rules

For a long-term plan which is frequently backed up, it will be very space-consuming with all images reserved, you may need to delete some previous image files in a regular time to release disk space. Manually deleting is not easy and might cause some unexpected troubles, so we provide 2 kinds of automatic existing images cleanup rules to help you meet this target.

Preserve no more than X version(s)

Backup version is the result of one backup operation. Physically, it is may be one single file or a set of files when you specify image split for this operation. A backup version can be also considered as a copy of the backed up data.

After specifying this attribute to a schedule, our product will automatically create full images in regular intervals. After the full image created, our product will detect all previous images, and ensure the recent X versions' images can be recovered, then delete all the images which have exceeded the limitation.

This method applies to the schedules which need to be executed in a higher frequency. It will be much easier to manage the old images based on versions rather than days in this situation.

Preserve backup images of the last X day(s)

Specifying X days to preserve images, our product will still create full images in regular intervals, and then delete all the images which have exceeded the time limit with this rules adopted.

Tip:

The day(s) which have no image file generated will be not included in the preserved days.

Where to specify the rule

For the backup which is being created, you may find the option in the step where you need to specify destination path to save images.

For a created backup, please login **Backup management** under **Home** page, select the backup you want to assign a cleanup rule for and click **Edit**. Switch to **Location** page in pop-up window, you will find the rules in lower left corner.

Backup management

All successfully created plan and task will be listed under this management window. Generally, you will get a clear main idea how many plans are still running and which task has been finished on your computer from here, or you want to make some changes for the existing task and plan, you can also meet the target in this window.

To login the management window, please click **Backup management** under **Home** page. Except working with the old three drop-down menu, we also add right click menu to help you manage your task. All the operations you can do in this window are listed below.

The 2 obvious options in red color, locating behind every task

Edit - see details about a finished task or modify a plan.

Run now - start backing up the changes for current chosen backup task/plan, an incremental image will be generated after the operation.

The 3 drop-down menus, you can also find some of these options in new added right click menu.

New Backup

To call the corresponding backup wizard by choosing related backup type.

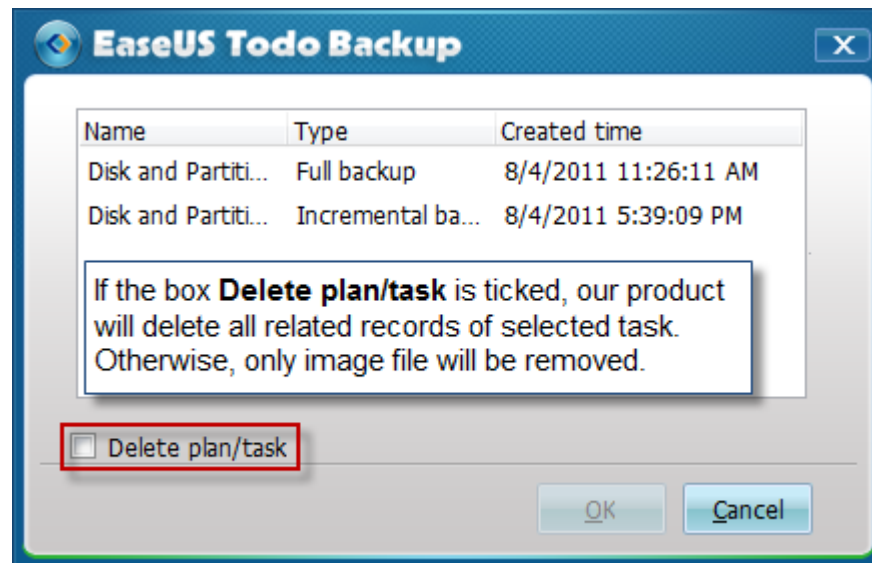
Recovery

Directly start to recover from current selected backup, know more please refer to

[Recovery](#).

Advanced

Delete backup - Select an image file to delete (if a full backup image is deleted, all the incremental image files based on it will be removed too), if the option **Delete plan/task** is ticked, our product will delete the record of current chosen task or plan at first (without record, our product will not show related plan/task anymore), and then a pop-up box will ask whether to delete the image file. Relatively, our product will only delete the image file if the option **Delete plan/task** is unchecked.



Check image - Refer to [Check image](#) to see more information.

Start plan - restart the paused backup plan.

Pause plan - temporarily stop scheduled task with this function.

Convert image - convert disk or partition image file to a virtual hard disk file, make it available for VMware (.vmdk) or Virtual (.vhd). Another necessary patch file is required before converting to VMware virtual hard disk file, which can be found in official website of VMware.

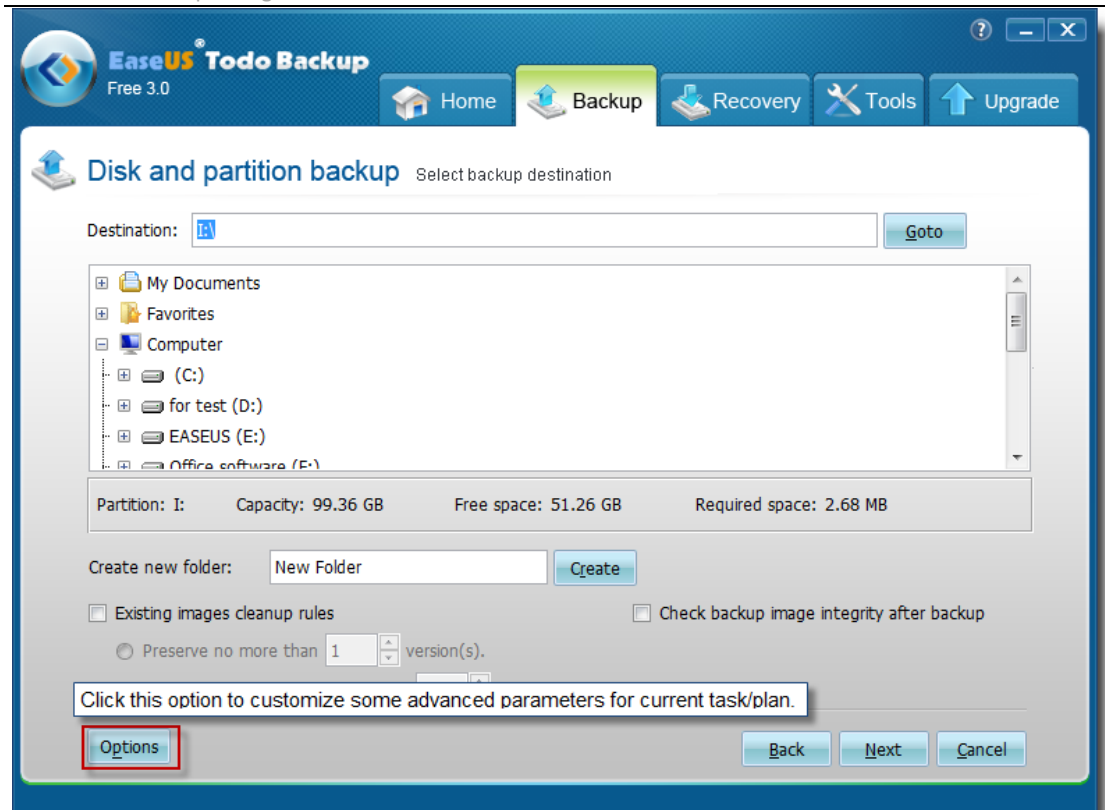
Backup options

Some advanced parameters can be specified before backup starts. This button is located at lower left corner in the step of choosing destination path in backup wizard. The section below has detailed description about each parameter.

Our product will remember your choice in Backup options, your settings for last created task/plan will be the default value for next task/plan.

Tips:

- All incremental backups will inherit the parameter setting of their full backup.
- The parameter in a schedule can be modified, how to do this, please refer to [Modify a scheduled task](#).



Compression

A backup file can be compressed. You can determine the compression level for a backup archive:

None - data will be imaged without any compression, which may significantly increase the backup file size.

Normal - recommended data compression level.

Medium - need more time to create a compressed backup image file.

High - the time to create a backup would be much longer, but the generated image file maybe much smaller than other levels.

Please notice that the size of generated image file may not significantly decrease even through the **High** compression level is selected. That is because some kinds of files are essentially compressed, such as .jpg, .pdf or .mp3.

Password protection

A backup file can be protected with a password. By default, there is no password for backups.

Enter the password for the backup archive into the password box. A password should be consisted of 1 symbol at least, or up to 15 symbols. All ASCII codes can input in the box. Retype the previously entered password into the **Confirm password**.

There are 3 kinds of algorithms in our product **AES128**, **AES192** and **AES256**. **AES128** is normal encryption algorithm and **AES256** is the one which is most difficult to crack.

Note:

If you try to recover data from a password-protected archive, the program will ask for the password in a pop-up window, allowing access only to authorized users.

Splitting

To fit the size of the different storage medium, the image file can be split into several files. Select a mode to split a large image file to smaller files.

Automatic - the split size depends on the file system on the destination storage medium.

Manual - select an existing size or manually input the split size, please notice that the minimum size our product can handle is **50MB**.

Priority

Windows is a multitasking system. It means that various applications are running simultaneously in it. The priority of an application is a parameter that tells the system which task has higher priority over other tasks.

Normal - Operating system allocates fewer system resources for backup process. if the backup task is not urgent, and some other applications need to be run at same time, this will be the best choice.

Medium - backup process will have equal priority with other application.

High - backup process has the highest priority and run much faster than the other priority levels, but the performance of other applications may be significantly reduced.

Please notice that the backup speed also depends on system environment and hardware configuration.

Email notification

With **Email notification** function, EaseUS Todo Backup will send an email to specified

email address with detailed information about related task/plan.

E-mail address - specify an email address to receive the email.

Outgoing mail server (SMTP) - specify an email server to send the notification email.

Port - specify a port number for the email server.

Username - input the username of Email account.

Password - input the password of Email account.

Send test message - Send a test mail to determine whether the parameters are correct and the Email address is accessible.

SSL/TLS - If the email server uses SSL/TLS encryption, this option need to be selected.

Additional notification settings

Send notification when operation succeeds - EaseUS Todo Backup will send an email notification only when the operation succeeds.

Send notification when operation fails - EaseUS Todo Backup will send an email notification only when the operation fails.

Commands

Execute command before or after the task/plan, EaseUS Todo Backup will execute the command automatically.

Pre-command - execute specified command before the backup.

Post-command - execute specified command after the backup.

You can type the command manually or click "**Edit**" to configure it.

Command - input the command manually or click **Browse** to select a batch/executable file.

Work path - specify a path where the batch/executable files located, or it will be automatically displayed after a batch/executable file is selected by **Browse**.

Parameter - indicate a **Parameter** of the command.

Abort operation if user command fails - automatically abort the backup if the command executes incorrectly or unsuccessfully. This option is only available in "**Pre Command**".

Offsite copy

Create a copy of the backup image onto a FTP server. You need to tick the checkbox to

enable this function.

Enable before setting the parameters.

FTP address - specify the FTP address for your network.

Port - specify a port number for the ftp connection. In FTP networking, a port is an application-specific or process-specific software construct serving as a communications endpoint, providing a multiplexing service.

Username - input the username to login the FTP network server.

Note: You can select **Anonymity** if the FTP network server is shared to all users in the network.

Password - input the password to login the FTP network server if it is needed.

Retry attempts - set the retry times. If the program fails to connect the network server, the program will try to connect the server again. It will retry X times as you set.

Delay between retries - set the interval between each retry. There will be a certain time delay after last failed connection.

Connect type - FTP has two working modes, **PORT** and **PASV**, select the suitable connect type according to your situation.

Test parameter - test whether the FTP server can be connected with the parameters above.

Speed

Network transfer speed - set the network transmit speed. 0 Mbps means there is no limits for the network transmit speed and all network connection resource will be utilized by our product in this situation.

Recovery

This feature is a reverse operation of backup, it will release the files included in the image file, and make things back to the time point when the image file created. So with this feature, computer users can help themselves extricate from a variety of computer disaster, such as virus infection, system crash, partition lost etc. As long as there is a valid image file created when the computer is healthy, then all the troubles will be easily removed after a simple recovery process.

System recovery

Recover the image file created by **System backup** feature. This is also the quickest meaning for recovering system, you can finish the task only in 2 steps.

1. Click **System recovery** under **Home** page, our product will automatically located the path where the image file exists. Choose the one you want to recover and click **Next**.
2. Select the destination hard disk which you want to recover to, and then click **Proceed** to implement the operation.

If the destination disk is SSD, ticking the box **Optimize for SSD** will ensure sector alignment in the process, and the chance of successfully booting from the SSD after recovery will be increased.

It always unnecessary to check the other option, know more about it, please refer to [Sector by sector recovery](#).

Tip:

If the size or location of the original system partition has been changed since the image created, our product will ask you to restore to another hard disk when you try to recover the image file.

Disk and partition recovery

This feature is used to recover disk and partition image file, including operating system and data partition.

1. Click **Recovery > Disk and partition recovery** to start the wizard.
2. Select a backup task to recover (you can find the task you need by its **Description**). If the task you want to recover is not in the list, manually locate it by clicking **Browse**.
3. There might be more than one image files listed if the task has been updated before. The **Created time** will be an obvious sign to distinguish which time point need to be recovered.

4. Decide the partition(s) or hard disk(s) you want to recover in the image file, it is unnecessary to choose the entire content if you just want to recover part of it, such as only choose a partition in a disk image file.
5. Select a destination partition/disk to recover the partition/disk to.
 Ticking **Sector by sector recovery** will perform recovery in sector by sector mode. In this mode, you cannot modify the size of recovered partitions. For more information, see [Sector by sector recovery](#).
 In this step, the capacity of destination partition/disk should be at least equal or larger than the used space of backed up partition/disk in the image.
 If the destination disk is SSD, ticking the box **Optimize for SSD** will ensure sector alignment in the process, and the chance of successfully booting from the SSD after recovery will be increased.
 Note:
 The destination partition/disk will be totally overwritten, and the data on it may be permanently lost.
6. Preview the partition/disk layout after recovery. The partition can be moved, resized or set active if there have enough free space. The capacity of a partition will not able to change if the option **Sector by sector** is ticked.
7. Confirm every detail about current recovery, click **Proceed** to implement it, click **Cancel** to exit the recovery or click **Back** to change some parameters which is not satisfied.

If there are some files opened or applications launched on the destination partition/disk, our product will require computer rebooting and execute the recovery task in Pre-OS mode.

File Recovery

To recover file(s) and folder(s), please do as follow:

1. Click **Recovery > File recovery** to start the wizard.
2. Select a backup task to recover (you can choose the right task based on its **Description**). If the task you want to recover is not in the list, manually locate it by clicking **Browse**.
3. There might be more than one image files listed if you create some incremental backup for the task. The **Created time** will be an obvious sign to distinguish which time point need to be recovered.
4. Indicate files to recover. You can specify the files to recover in following three modes.
Recover specific files or folders - specify the files or folders manually in the image file, only the selected files/folders will be recovered.
Recover files by types - select certain file type(s) to recover.
Search files to recover - search specified file by name to recover.
5. Select a destination location to recover files.
Recover to original location - the files or folders will be recovered to its original location where it is initially located before backup.
Specify a recovery location - the selected files or folders will be recovered to a specified location.

Overwrite existing files - When you intend to recover some files to its original location, but these files are still located in that path, tick this option can ensure a smooth recovery. You can find this option in file recovery wizard, in the step you need to choose the path where you want to recover to.

Check backup image integrity before recovery - check image before the recovery started, if the image file has errors, the recovery will be unable to proceed.

6. Confirm every detail about current recovery, click **Proceed** to implement it, click **Cancel** to exit the recovery or click **Back** to change some parameters which is not satisfied.

Dynamic volume recovery

To recover dynamic volume is also a similar process like recovering basic partition, the only difference is you cannot specify recovering the image file back to dynamic disk, which means you can only recover the image file of dynamic volume to a basic hard disk (recover to unallocated space or existed partition is both OK).

Click **Disk and partition recovery** under **Recovery** page, and then follow the wizard to finish the task, more instruction about this wizard, you may refer to [Disk and partition recovery](#).

If there is an Operating System installed on the backed up volume, the volume will become a primary partition after recovering it to a basic disk, otherwise, it will be a logic partition.

Sector by sector recovery

Checking this option will recover the content in image file **sector by sector**, it can ensure the recovery process finished successfully if there are some logic errors on the original partition or hard disk. Or if you want every files are distributed on their original sectors after recovery, tick the option will meet the goal. But the destination partition is unable to resize in following steps if this option ticked.

Universal restore

This function is only available when you restore operating system installed on primary partition, if you want to restore a system partition to another computer which has dissimilar hardware configuration, ticking this option will ensure all hardware on destination computer working normally after the recovery, since our product will detect the new hardware and let you install drivers in the process. And there are 2 methods to complete the operation.

Full way

1. Click **Disk and partition Recovery** under **Home** page or switch to **Recovery** page and select **Disk and partition recovery** directly.
2. Press **Browse** to locate the image file of your operating system and click **Next** to continue.
3. Choose the system, boot partition of the operating system you want to recovery at first, and then tick **Recover to dissimilar hardware** box in the lower left corner, click **Next**.
4. Specify where the operating system recovers to, click **Next** and the computer will ask for rebooting. This feature can only be executed under Pre-OS mode or WinPE bootable disk.
5. In the progress, when some new hardware is detected, you will get a pop-up box which needs you to load the driver manually. Browse the directory to find the driver and install it, or click **Skip** to ignore the box, if you can ensure the current found hardware is useless for booting computer.
6. After adding all necessary drive, you may try to boot from the destination hard disk by changing boot sequence in BIOS.

Quick way

A specialized and simplified wizard for universal restore, this quick way is located under Recovery page and its name is Recover to dissimilar hardware, click it to start the simple way.

1. Select the system image which you want to recover, if you have ever created a system image through [System backup](#) feature, the generated image file will be chosen by default.
2. Decide where you want to recover the system image file to, click Proceed to implement the operation.

If the destination disk is SSD, ticking the box **Optimize for SSD** will ensure sector alignment in the process, and the chance of successfully booting from the SSD after recovery will be increased.

It always unnecessary to check the other option, know more about it, please refer to [Sector by sector recovery](#).

If you are using the Free or Trial edition, you need to create a WinPE bootable disk manually to enjoy this feature.

Clone

Make a duplicate of the chosen hard disk or partition, compare with backup, there will be an identical hard disk or partition generated instead of having an image file after the operation. And you can directly use the result without recovery.

Disk clone

Disk clone will transfer all data (include operating system and installed program) on the selected hard disk to another, it is especially useful when you want to replace hard disk with a new larger one. For a successful copy process, please make sure the capacity of destination hard disk is equal or larger than the used space on source hard disk.

1. Click **Clone** button under **Home** page and choose **Disk clone** to start the wizard.
2. Select the hard disk you want to clone and click **Next**.
3. Select the destination hard disk which you want to clone to, to know more about the option in this step, please refer to [Sector by sector clone](#).
If the destination disk is SSD, ticking the box **Optimize for SSD** will ensure sector alignment in the process, and the chance of successfully booting from the SSD after recovery will be increased.
Tip:
The destination hard disk will be totally overwritten after clone, and the data on it may be permanently lost.
4. Confirm the hard disk layout on the destination hard disk after clone, if you still have some unallocated space on destination hard disk, you can redistribute the disk layout according to your needs.
The partition will not able to change if the option Sector by sector is ticked.
5. Click on **Proceed** to implement the operation.

If the destination hard disk is locked by other programs or some files and applications on it are still in use when the clone operation is preparing to start, our product will require system reboot and execute the operation in Pre-OS mode.

Partition clone

Select a partition to clone, the step by step wizard can help you finish the job easily. For a successful copy process, please make sure the capacity of destination partition is equal or

larger than the used space on source partition.

1. Click **Clone** button under **Home** page and choose **Partition clone** to start the wizard.
2. Select the source partition you want to clone and click **Next**. Compare to back up partition, only one partition can be cloned at one time.
3. Select the destination partition which you want to clone to, to know more about the option in this step, please refer to [Sector by sector clone](#).
If the destination disk is SSD, ticking the box **Optimize for SSD** will ensure sector alignment in the process, and the chance of successfully booting from the SSD after recovery will be increased.
Tip:
The destination partition will be totally overwritten after clone, and the data on it may be permanently lost.
4. Determine the location and capacity of the target partition after clone, if you have some free space adjacent to this partition, you can move it or resize it with the space by simply dragging.
Or if you want to boot from the cloned to partition on another hard disk, tick the option **Set active** will make the operation more smoothly.
The partition will not able to change if the option Sector by sector is ticked.
5. Click **Proceed** to implement the partition clone you just set.

Dynamic Disk/volume clone

Besides support backing up dynamic volume in version 3.0, we also add dynamic disk/volume clone feature in this version. You can clone all dynamic volumes in your computer to another basic disk with [Disk clone](#) feature, although these volumes may actually locate on different physical hard disk, but they will be all listed under Dynamic disk when choosing the clone source.

And you also can clone an individual dynamic volume to basic disk, you can both select the used space or unallocated space on basic disk as clone destination. The task can be finished with [Partition clone](#).

In order to ensure the integrated of the data on dynamic volumes, the current version of our product can only support recovering dynamic image to basic partition or select basic disk as the clone destination. Although you may feel some inconvenient in the process, but the security of your data will be definitely ensured in this way. Meanwhile, we will try our best to improve this regard in future version.

Sector by sector clone

A sector by sector clone ensures that destination hard disk/partition is exactly the same as source hard disk/partition. It will clone all the sectors if the option is checked, even if the sector is blank or a logical bad sector. As a result, the target will be equal in size to the disk being cloned after the process. You can find the option in the step to choose destination hard disk/partition both in Disk clone or partition clone wizard.

Advanced server tools

In today's business data management for a company, a server administrator always utilize different tools to manage the variety of data every day. Such as MS exchange for email management, MS SQL for relational data query and update. The data is very important for the daily work of a company. The server administrator may have the responsibility to keep physical security, integrity, and safety of the data. A regular backup for the data in these tools is really a good habit, which not only help you facing the unexpected system failure, but also save the data status in some specified time point.

In version 3.0, we have spent a great deal of resource in developing this regard, and now, our product can support backing up Exchange server and MS SQL server, also you can back up these data to Tape device for better management and storage. All these features are only available in **Advanced server edition**.

Backing up Exchange Server

Exchange Server is the physical/virtual server where Microsoft Exchange installed, Exchange is part of the Microsoft Servers line of server products and its major features consist of electronic mail, calendaring, contacts and tasks; support for mobile and web-based access to information; and support for data storage. For current version of our product, selecting storage group as the basic backup unit is allowed. But if you need to back up individual email or email box, we are sorry that is still in developing.

The Exchange version our product can support is Exchange 2003 and Exchange 2007.

All task and schedule you created in Exchange backup will be also listed under [Backup management](#), which means you can still Edit or upgrade an Exchange backup task here.

Exchange Normal backup

To create a normal Exchange backup task, please click **Exchange backup** under **Home** page, or directly switch to **Backup** page where also include the feature **Exchange backup**. And please ensure the Exchange server is mounted before starting the backup task.

1. Select **New Exchange backup** and specify the task name to start a new full Exchange backup. We suggest you include the letter "Exchange" in the task name if you want to change the default task name, as this will help you to distinguish Exchange tasks from others more easily in Backup management.

About the two options [Incremental Exchange backup](#) and [Differential Exchange backup](#) under the description box, they are nearly the same as the similar options in a normal back up task, please refer to related instruction paragraph to get more information.

2. Select backup target, for current version, only storage group can be selected as a backup resource. Individual email and email box cannot be chosen here.
3. Decide where to save the image file. You can select from the graphic directory tree or manually input a path in **Destination** box and click **Goto** to open the path, then choose an existing folder to save the image file or **Create** a new folder to do so.

Ticking **Check backup image integrity after backup** option, EaseUS Todo Backup will automatically [check the image file](#) after backup process finished.

In order to save disk space for a long period time of backup plan, you can specify [Existing images cleanup rules](#) to delete outdated image files in a regular time.

Clicking **Options** to set advanced parameters for current backup task, such as assign a password for image file, send a notification email after the backup, compress image file to save disk space, etc. For more information, see also [Options](#).

4. Specify to run the backup immediately or as a schedule. More about setting a plan, please refer to [Schedule setting](#).
5. Confirm every detail about current task, click **Proceed** to implement it, click **Cancel** to exit the task or click **Back** to modify those unsatisfied parameters.

From the steps above, we can see the whole wizard is nearly the same as normal Disk and partition backup, except the backup target has changed to storage group in Exchange server. So if you are familiar with EaseUS Todo Backup, we believe you can use this feature skillfully in minutes.

Exchange Schedule backup

As we have integrated schedule setting into backup wizard for a normal plan, the Exchange schedule setting is also added in normal Exchange backup wizard. In step 4 of the backup wizard where you need to determine to run the task immediately or as a schedule, you can just select the time point when you need the task running to make current task as an Exchange schedule backup. More about how to set the time points please refer to [Schedule setting](#).

Since Exchange server always need to stay in working service, so we remove one of the schedule settings “Based on Windows or Windows user login/logout”.

Exchange recovery

A reverse operation for Exchange backup, you can store Exchange storage group with this feature.

1. Click **Recovery** > **Exchange recovery** to start the wizard.
2. Select a backup task to recover (you can confirm which is the task you need by its **Description**). If the task you want to recover is not in the list, manually locate it by clicking **Browse**.
3. There might be more than one image files listed if the task has been updated before or this is an Exchange schedule backup. The **Created time** will be an obvious sign to distinguish which time point need to be recovered.
4. Specify which storage group to recover, it is unnecessary to choose the entire content if you just want to recover part of it, such as only choose one storage group in an image file which includes multiple storage groups.
5. Confirm every detail about current recovery, click **Proceed** to implement it, click **Cancel** to exit the recovery or click **Back** to change some parameters which is not satisfied.

Our product will automatically recover the storage group to its original location, so you don't need to specify where to recovery the image file to.

Backing up MS SQL Server

SQL is an acronym of Structured Query Language Which is designed for managing data in relational database management systems. Its function includes data insert, query, update and delete, schema creation and modification, and data access control. **Microsoft SQL Server** is such a relational database server product by Microsoft. And MS SQL 2000/2005/2008 are supported by our product.

The extension of the generated image file is .bak.

User login

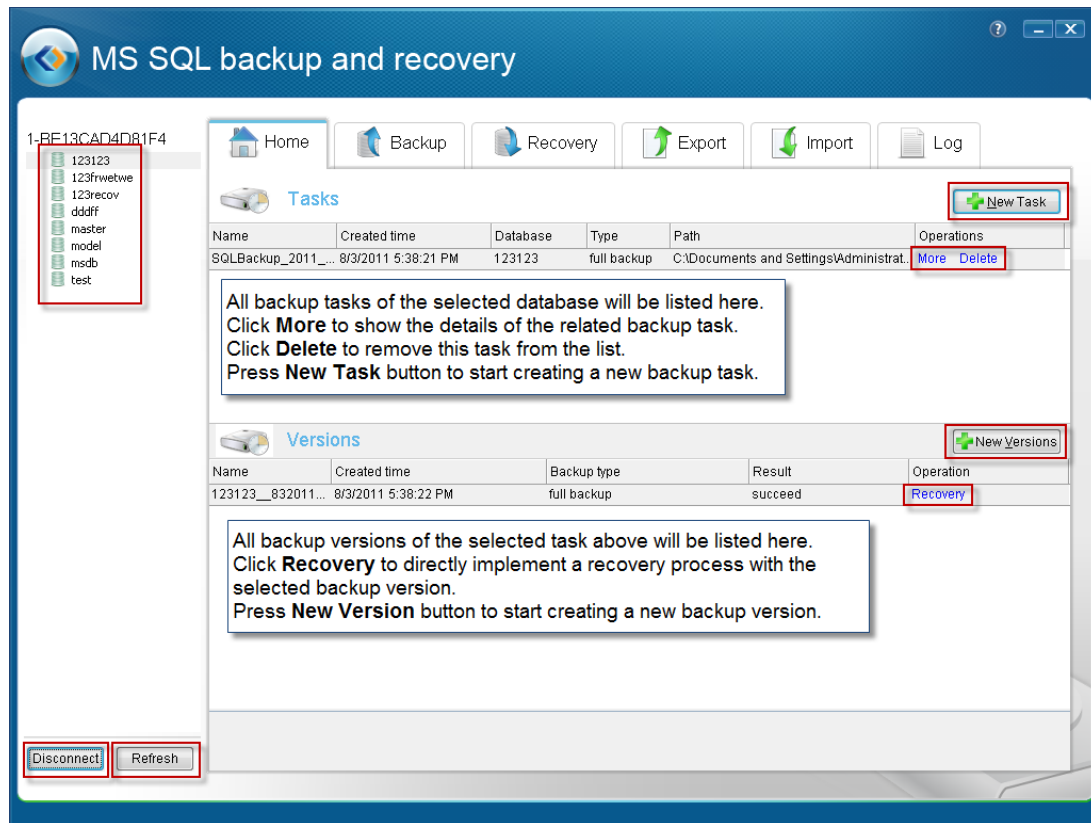
Click **MS SQL backup** under **Home** page to call SQL backup tool of our product, an authentication box will pop up then. Input a valid Windows administrator or a SQL server account to get through the authentication. Don't forget to select the instance you want to login in this step.

Home

This page will be shown in default after MS SQL backup tool launched, it can be

considered as a [Backup management](#) for SQL backups. Under this page, you can verify and manage all backups in the instance you logged in.

Following is a description capture about some explanations of the available button/options in this page.



All the databases will be listed in the left panel, you can do the operation you need after selecting one or more of them. And pressing the **Disconnect** button in lower left corner will cut off the connection to the instance and back to login window, clicking **Refresh** will update the latest changes in the instance.

Backup

Unlike backing up normal and Exchange data, you can set all related parameters in one step under Backup page to back up SQL database rather than go through a long wizard. If you need to create a new task or plan, please pick the database you want to back up from the database list on the left hand at first, then the items you can set under this page include:

Basic information

Task name - specify a name for current modifying task.

Destination - decide where to save the image file, besides support selecting normal hard disk as the backup destination, you also can back up SQL server to tape (our product will ask for a certain amount of free space for temp data transfers on local hard disk when you decide to back up to tape).

Continue if error - whether to ignore media errors in the process.

Plan

All options under this section will only be available when the switch of Schedule turn to "On", otherwise, all settings will be greyed out and unable to change. And for current version, you can specify time based on day, week and month.

And then, you need to decide which type of plan to use.

Full - always backup all databases and the transaction log.

Differential - only backup changed files since last full backup and the transaction log will be also included.

Transaction log - backup transaction logs only.

Options

Compression - whether to compress the image file in the process (only MS SQL 2008 Enterprise and the later version support this option).

Notification – whether to send the result of this plan to a specified email address, more about the setting, you may refer to [Email notification](#).

Recovery mode

Specify a recovery mode for current task.

Simple - No log backups. Automatically clears log space to keep space requirements small, essentially eliminating the need to manage the transaction log space. Putting a database into simple mode means that you don't want to take log backups and all you want to do is rely on full backups for your recovery.

Full - Requires log backups. No work is lost due to a lost or damaged data file. In this mode everything is fully logged so you can always recover individual transactions.

Bulk log - Requires log backups. An adjunct of the full recovery model that permits high - performance bulk copy operations. Reduces log space usage by using minimal logging for most bulk operations.

Recovery

To recover a MS SQL image file, please follow these steps.

1. Switch to Recovery page.
2. Select the original database which you create the image for in the list panel on the left hand.
3. Specify an image to recover, if the image file is located on a tape, you just need to tick the radio button of **Tape drive**, and select the tape in the drop-down list.
4. In **Select recovery mode** section, you can recover the database in the image file to an existed database, which will apparently cause the target database overwritten. Or recover to a new database by specifying a database name and location.
5. Tick the option Continue if error, our product will automatically skip all media errors in the process.
6. Click **Proceed** to implement the operation.

Export/Import

Export

Select a database and export it to be a MDF file for further use, transferring it to another instance or SQL server are both allowed in our product. Our product will also export the transaction log as a LDF file in the process. Following are the detailed steps.

1. Select a database from the database list panel on the left hand.
2. Specify a location where to save exported MDF file.
3. Click Proceed to implement the operation.

Import

Clicking Browse behind data file to import a MDF file, and whether to import transaction log file is optional. If you don't need the actions executed information of the database on original instance, you can just ignore the Browse behind log file.

Besides, you can specify to import to an existed database, which will be overwritten after the operation. Or you can create a new database for importing MDF file.

Log

All operations in this tool will be recorded in log file and listed under this page, you can get detailed information for each task here, such as whether the task is succeed, when it is created and what type of backup it is, etc.

If you want to view the details of a specified task in the log file, but it has been already invisible due to a certain number of latter created tasks, then you can search it by **Keyword** or time frame. All task(s) which apply to the search condition will be listed under this page.

Carefully press the **Clear** button, as it will remove all information in log file.

Backing up to Tape Drive

A tape drive always consists with tape driver and physical magnetic tape. An administrator can read and write data on the magnetic tape through the tape driver. This kind of storage device is typically used for offline, archival data storage. Tape media generally has a favorable unit cost and long archival stability.

Save PBD image file to tape

The default extension of the generated image file of our product is PBD, the image file of normal backup task and Exchange backup task both has this extension. When you decide to save an image file to a tape, select Tape Device in the step where you need to specify the destination for current backup. For a PBD image file, our product needs at least 2GB free space on local hard disk for temp data transfers.



Save BAK image file to tape

BAK is the extension of the image file generated by MS SQL backup tool, for a BAK file, you can move the switch of Destination to Tape drive under Backup page of our MS SQL backup tool, and then, the image file will write to the selected tape. Since different algorithm used in SQL backup, our product will ask for a certain amount of free space on local hard disk, nearly the equal size of generated BAK file for transferring temp data in the process.

When recovering a BAK file from tape drive, you just need to select the radio button Tape drive behind Backup file under **Recovery** page.

Tip:

- Differential images cannot save to tape.
- If you select a tape which already has some data existed, our product will ask you whether to overwrite these data in the process. Of course, you can insert another blank tape for saving the image file rather than clicking yes.
- For a plan, our product will automatically create a full image on a new tape.
- Our product cannot support automatically replacing the full tape for an auto-loading tape drive.

Snapshot

A **snapshot** is the state of a system at a particular time point. This feature allows you to test a new deployment. If things go wrong, 'Roll-Back' the computer to the Time the Snapshot was taken is allowed. Snapshot has been designed to simplify backup, recovery and disaster recovery processes, improving system availability.

Please notice that this feature is only available in workstation edition.

Advantages of snapshot

Snapshot is an alternative for backing up system comparing to partition imaging, it requires less storage space, and the restoration speed will be greatly increased. In addition, the disk, which contains snapshot files, will be protected in our product.

But for a long-term data protection, backup would be still much more stable and better, because snapshot is only a "quick method" which might be unavailable after the system has been changed too much.

Tip:

This feature is only available in **Workstation** edition.

Create snapshot

To create a system snapshot, click **Snapshot** on the main window. The snapshot management window will be shown on the interface.

1. Click **Enable**, and decide how much space is used for saving Snapshot. This depends on how many available disk spaces the hard disk (which contains current running operating system) has and the frequency of using snapshot.
2. Click **Next** to create the system snapshot.
3. Reboot the computer to activate the snapshot. The first snapshot will be generated after computer restart.

You may not be able to see the snapshot files in your computer as they are hidden files. To hide the files is to protect the snapshot files from damage or virus infection or something else. And this is completely harmless to your computer.

Once the first snapshot has been enabled, you can create new snapshots just by clicking **Create** in the snapshot management window. Compared to backup feature, you don't need to select a location to store the snapshot files. It will automatically written to the file

created before, and there is no need to reboot the computer if you just try to create a new snapshot.

In addition, the partition or the hard disk which contains the snapshot Virtual protection file will be displayed as **Protected** in particular steps of some wizards in our product. In order to protect the Virtual protected file, it is not allowed to write to the marked partition or hard disk, which means you can back up or clone the protected partition or hard disk, but you cannot recovery or clone to it.

Delete a system snapshot

Switch **Snapshot** page. Find the snapshot need to be deleted in the list by **title** or **created time** and Click **Delete**.

For the special algorithm used, if you have multiple snapshots, all the previous ones will be disappear after you delete one snapshot.

In addition, there will be a fresh snapshot automatically generated after all snapshots are deleted, which means there will be at least one activated snapshot available in our product.

Restore system from snapshot

To restore system from snapshot, click **Snapshot** in the main window. Select the snapshot from the snapshot list by the title and created time. Click **Restore**.

Please notice that if you restore to an earlier snapshot, then all other snapshots after that time will be lost. So it is strongly recommended you to back up your system partition before you do the operation if you have many snapshots.

Disable snapshot

If you don't want to use this feature anymore, switch to **Snapshot** page, click **Disable** to make this feature unavailable. This setting will take effect after computer reboots.

Please notice that this button will be grayed out if you refuse to reboot computer immediately after the first snapshot enabled.

Tools

Some useful and distinctive tools are listed under this page. With these tools, your backup/recovery job will be more stable and easy to control.

Bootable media builder

EaseUS Todo Backup bootable media builder allows you to create an emergency disk. This disk is especially useful when your system fails to boot. To the users of EaseUS Todo Backup commercial editions, WinPE bootable disk is provided while Linux ISO bootable CD is offered to the users who have EaseUS Todo Backup Free and Trial editions (but We also provide a WinPE builder to help users of EaseUS Todo Backup Free Edition to create a powerful WinPE bootable disk). To know more about the difference between these 2 kinds of bootable disk, see also [bootable disk](#).

Before create a bootable disk, a blank CD/DVD-R/RW or an USB flash disk/USB external hard disk is required.

1. Click **Tools** > **Bootable media builder**.
2. Select a USB device to create the emergency disk on it, or choose a CD/DVD device to burn the emergency CD/DVD, a blank CD/DVD is required in this way.
3. Click **Proceed** to create the emergency disk.

Tip:

- If you fail to create bootable disk with built-in creation wizard, click **Export ISO** > **Browse** to export the image.iso file and directly use this file to burn bootable disk with third party burning software.
- Click the link at the bottom in Free edition to call WinPE builder tool, follow this tool you can create a powerful WinPE bootable disk with the Free edition.
- You need to create an active partition at first if you want to create the bootable disk on a USB device.

Check image

Check image can verify the validity of the image file after backup, and ensure whether the image file can be recovered successfully after a long time since it has been created. If our product finds some errors during check process, this image file might be damaged and cannot be used for recovery with our product.

1. Click **Tools** > **Check image**.

2. Find the backup image need to check.

3. Click **Proceed** to run check process.

Mount/unmount image

Mount

In order to ensure what is included in a full backup image or browse the content of this image, we provide **Mount** function to make sure you can restore the correct partition(s) image. Besides, copy some specified files out of the mounted drive is also allowed.

1. Click **Tools > Mount image > Mount**.
2. Select an image file by clicking the directory tree or manually input the File Path. Click **Next**.
3. Select the image file time point, click **Next**.
4. Click "**Click here to change drive letter**" under **Operation** item to assign a new letter for the mounted drive.
5. Click **Proceed** to start mount.

Tips:

- If the selected archive is password-protected, when you click **Next** in step 3, you need to enter the password to continue the process.
- We suggest you mount the image file with the same Windows administrator/user which you used to create the image file. This can ensure you have full access permission after the driver mounted.
- Only partition image or partition(s) in disk image can be mounted.

Unmount

Maintaining the mounted virtual drive takes considerable system resources, so we recommend you **Unmount** the virtual drive after all necessary operations have finished. You may click **Tools > Mount image**, tick the mounted drive you want to cancel, and then click **Unmount** to do the operation.

If you do not **Unmount** the virtual drive, the virtual drive will automatically disappear after the computer restart.

Disk tools

Disk tools include Disk clone, Partition clone, Wipe data and iSCSI Initiator.

Disk clone - for more information, see [Disk clone](#).

Partition clone - for more information, see [Partition clone](#).

Wipe data - permanently erase data from chosen disk(s) or partition(s). You can set the times to wipe in **Erase Times**. Be careful that you cannot undo this operation and the data will be permanently lost.

iSCSI Initiator- connect to and configure the iSCSI device.

There are two methods connecting to an iSCSI target device:

Quick connect

1. On the **Targets** tab, type the name or the IP address of the target device in the **Quick Connect** text box, and then click **Quick Connect**. The Quick Connect dialog box is displayed.
2. If multiple targets are available at the target portal that is specified, a list is displayed. Click the desired target, and then click **Connect**.
3. Click Done.

Advanced connection

1. Click the **Discovery** tab.
2. To add the target portal, click **Discover Portal**, and then in the **Discover Portal** dialog box, type the **IP address** or **name** of the target portal to connect to. If desired, you can also type an alternate **TCP** port for the connection.
3. Click OK.

Once connected, you can operate the connected iSCSI hard drive as your physical hard drive on your system with EaseUS Todo Backup, such as backup, restore and so on.

Convert image

Besides converting image file in backup management, you can also convert your image file to virtual disk file with this separate tool here, you can do as follow to finish a conversion task.

1. **Click Convert image under Tool page to call this tool.**
2. Locating the image file you want to convert by pressing Browse behind Backup image.
3. Specify the destination by directly inputting the path or Browsing the whole directory to find one.
4. Select the type of the virtual disk file you want to convert to. The 2 available file types for now are VMDK for VMWare and VHD for Virtual PC.
5. Click Proceed to implement the operation.

Tape management

If you always save images of our product to tapes, for a long term of use, it may difficult to figure out what is included in a tape without a physical label. So we provide this feature to help you manage all the tapes.

Click this feature, our product will list all detected tapes in a pop-up box, you can get a main idea about the content in each connected tapes from the list, or select an image file and click **Wipe** to remove it.

Enable/Disable Pre-OS

Switch the status of [Pre-OS](#) between Enable and Disable by clicking Enable/Disable Pre-OS under tool page. The name of the button depends on current status of Pre-OS. If Pre-OS is turning on now, the button will be Disable Pre-OS. Instead, the button will display as Enable Pre-OS when Pre-OS is turning off.

Once the Pre-OS enabled, you will get a boot menu which has our product included, select it and you can use our product before Windows starts to load.

Log files

Click the icon of our logo on the upper left corner in the main interface, and then choose **Log** to open log window. The log file records not only what operations our product has done, but also has the execution result of each operation, so you may check whether the task completed successfully here.

The operations can be done to the log files including:

Refresh - refresh the list to load the new generated log file.

Clear - delete all existing log files in the window.

Export all - output all log file records to a TXT or XLS file.

View - see details in a log file. For a failed task, you may find some character in error code, send it to us, with this information we can analyze the case and seek the root cause of task failure better.

Besides, you can input **Start Time**, **End Time** or **Keyword** to search desired logs.

Pre-OS

Pre-OS can be considered as a simple OS environment, under which you can use our product without system login or a ready bootable disk created. It is especially useful when the operating system fails to boot, login Pre-OS environment and recovering from a previous image will resolve the trouble easily. It will be turned on by pressing [Enable Pre-OS](#) under **Tool** page.

And there are 2 kind of Pre-OS environment for different editions.

Linux Pre-OS for Free and all Trial editions, which is based on Linux environment, and only [Disk and partition recovery](#) and [Clone](#) features are available under it.

Windows Pre-OS (which is also known as WinPE) for all paid editions, the version of WinPE that our product uses is 3.0 which is a simple Windows 7 environment, nearly all features are available in this environment. For Free and Trial editions, you can also enjoy this kind of Pre-OS after installing Windows AIK and creating a WinPE bootable disk or exporting a WinPE ISO file.

Tip:

When you intend to recover under Pre-OS or bootable CD/USB environment, please make sure the entire path which contains the image file consists with ASCII cord only.

Difference between WinPE and Windows

In Pre-OS, you can use most of the features the same as they works under Windows. But since the running environment is different, we have replaced some features with other useful ones to make your job more efficient in this situation. **Backup management** under **Home** is replaced by **Windows shell command** under **Home** page, and **Bootable media builder** replaced by **Device management** under **Tools** page.

Except the 2 difference above, some features will become disabled under this special environment, they are:

You can only view a task/plan with WinPE environment in [Backup management](#).

Windows shell command

Invoke MS-DOS command box. Input different user commands to make backup task more efficient and safe. Such as check errors before backing up a partition with CHKDSK command, or add hardware driver with drvload command.

1. Click **Windows shell command** under **Home** page under **WinPE** or **Pre-OS** environment.
2. Input the command in the pop-up window and press Enter key to run it.

3. Type exit and press Enter key to return to main window of our product.

Device management

You can map network drive, configure IP and add drivers with this feature.

Network manager

Click **Device management** under **Tools** page, select **Network manager** and click **Next**.

Map network drive - map a network drive as a local drive, and then you can back up to or recover from it.

Edit network drive - change parameter of mapped drive.

Disconnect network drive - unplug the drive after the operation has finished.

IP settings - configure IP parameter.

Driver manager

Since hardware RAID, SCSI or some kind of storage and network cards cannot directly recognized without drivers installed under Pre-OS, at this point, this feature can help you install the driver and make sure the operation can be proceed smoothly.

1. Click **Device management** under **Tools** page.
2. Select **Driver manager** and click **Next**, find the correct path Where the drivers of your hardware RAID or network card are located and install them.

Please notice that the WinPE version of our product is based on Windows 7, which means you need to use the corresponding driver version to do the job.

Fix MBR and Check partition

Fix MBR can help you get rid of some boot troubles which caused by corrupt MBR, this operation will write some fresh boot information to MBR sector to terminate the boot trouble, you can locate this feature in **Disk tools** menu under **Tool** page in Pre-OS or WinPE bootable environment, click **Fix MBR**, choose the disk you want to repair and then press **Proceed**.

Check partition can help you verify whether there are some errors on specified partition and fix them. Partitions with logic errors may be failed to back up with our product, so it is necessary to check and fix errors before backup. This feature also belongs to **Disk tools** menu under **Tool** page in Pre-OS or WinPE bootable environment, click **Check partition**, choose the partition you want to test, and the errors will be fixed after the process, if the option **Automatically fix file system errors** is ticked, and then click **Next** to start the operation.

Bootable disk

Apart from Pre-OS, we have 2 kinds of bootable disks, which can be also used to remove troubles when Windows rejects to boot. How to create the bootable disk, please refer to [Bootable media builder](#). Before using this emergency solution, you need to set your computer booting from CD/DVD or USB device in BIOS at first.

Linux bootable Disk

Linux based on bootable disk is provided in **Free and Trial** editions by default. Please notice that only [Disk and partition recovery](#) and [Clone](#) features are available with this kind of bootable disk. But the users of these editions are also allowed to create a WinPE bootable disk by installing Windows AIK at first, then following the WinPE builder we provided to create a WinPE bootable disk or export a WinPE ISO file and burn it with a third party software.

If you still need a Linux bootable disk after Windows AIK installed, we have a spare copy in installation path, you can find it by accessing the path X:\EaseUS\Todo Backup\bin\LinuxISO (X is the partition where our product installed), work with this image file you will gain a Linux bootable disk again.

After this operation, besides having a powerful WinPE bootable disk, there will be 2 more features become available, [Enable WinPE Pre-OS](#) and [Recover to dissimilar hardware](#).

WinPE bootable Disk

This kind of bootable disk is included in the commercial version. The bootable disk is based on a simple Windows 7 environment, and features can be used under this environment are exactly the same as Pre-OS, to know the details, please refer to [Difference between Pre-OS and Windows](#).

Support

For more information about EaseUS Todo Backup, please visit our website:

<http://www.todo-backup.com>

If you still cannot find what you are looking for and need further assistance, we encourage you to contact EaseUS Technical Support by support@todo-backup.com.

Please attach **easeus.log** file which you can find in bin folder under the installation path of our product when you encounter functional issues, and add **screenshot** about the error in your attachment. With these files we can locate the problem faster and easier.

Troubleshooting

1. If you encounter the error message "The image file is incomplete or not found", please check the following details.

- Whether the image path is still existing or not.
- Do you have full permission to access this path?
- If the problem persists after the 2 points above confirmed, we suggest you transfer the image file to a local hard disk, and then try to recover it.

2. Why does the system prompt more than one image file need to be deleted when I just delete one?

If you have some incremental image file based on the one which you want to delete, then all the incremental image files will be deleted too, so it is correct.

3. Can I execute an incremental backup without any full backup created before?

Sorry, incremental backup must be based on full backup. You need a success full backup before you do the incremental backup.

4. Can I clone hidden partition or the partition without driver letter, or clone the hard disk with these two kinds of partitions?

Yes, our product can support cloning these two kinds of partitions.

5. Why does the NTFS partition displayed as RAW after clone, and I cannot access it?

We think your original NTFS partition is written protected, please remove this attribute and then try again.

6. Can I back up my operating system to a CD?

Yes, our product can support this operation for now, but for a smooth recovery process, you'd better choose a local or external hard disk as the target to save images.

7. Can I use the feature "Snapshot" in a dual-boot or multiple-boot environment?

Sorry, this feature is designed for single boot computers. It may fail to work in other complex operating system environment.

8. Why is there always a parent directory generated with same name as the image file has after backup?

We believe image files will be easier to identify and manage in their individual folder when you have a significant amount of image files.

9. Why cannot I copy the required files out of the image when browsing it?

Since Windows has a limitation, that the entire file path and the file name cannot be composed by more than 255 bytes in total. So if you have a file with a very long file name, you may need to copy it to a shorter path.

10. Where are my files after a smooth recovery process? I mean there are no errors in the process.

You may try to display Windows hidden files and search again. Some files may just be hidden, since they originally have this attribute.

11. Can I modify image name or move the image path under Windows explorer or with other tools?

Please do not try to do the operations. In order to avoid any unexpected problem, please make these changes in [Backup management](#).

12. Why my RAID/SCSI hard disks cannot be recognized under WinPE or Pre-OS?

That is because our product doesn't come with all kinds of hardware drivers, so you need to add the driver manually. You can add the drive through [Windows shell command](#) under Home page or [Device management](#) under Tools in the special environment.

13. Why does the product get stuck and the icon keeps spinning for a long time when I want to view my disk or expand a directory?

There may be some other device connected when you do the operations, our product will try to list all of them, so the running speed may be decreased. Please unplug these devices and reject your CD/DVD before you do the operation or wait longer.

14. Why I always have the file pagefile.sys in my system image? But you told me your product will automatically exclude this file.

Yes, our product actually includes this file when creating a system image, but just for attribute of this file, it occupies 0KB space in fact.

Glossary

Backup

Backup refers to copying the data into one or several files so that the file(s) may be used to *restore* the original after a data loss event. Backup files created by EaseUS Todo Backup have a PBD extension.

Mirror image

A Mirror image is a single file containing the complete contents and structure or the selective files folders of a data storage medium or device. With this image, you can transfer the contents of a hard disk/ partitions or your important files/folders to other hard disks/partitions, for later restoration when needed.

Emergency disk

An emergency disk is a CD, DVD, USB flash drive or USB external hard disk drive containing a standalone version of EaseUS Todo Backup which can be booted. It can be used to restore the users' system or partitions. Once the system is booted up from the disk, users could restore the computer by EaseUS Todo Backup in this emergency disk.

Incremental backup

Incremental backup involves only those files that have changed since the last backup. It is much smaller and quicker than a full backup. It preserves multiple versions of backup so the users can restore their data to anytime when they have created a backup.

Recovery

Recovery is a process of returning system, partition or files to a previous state in the event of system malfunction, disk failure, data lost or virus infection.

Universal restore

With Universal Restore, you can restore your system partition and active partitions to different hardware configurations, so the users don't need to reinstall operating system and all the other programs after purchasing a new motherboard or maybe a new computer.

Disk/Partition clone

The term "clone" refers to duplicating all the contents of the source partitions/disk to the destination partitions/disk in file by file mode or in sector by sector mode, and then you can get a disk/partition which is exactly the same as the original one. Please note that the clone process will erase all the data on the destination partition/disk.

System snapshot

A system **snapshot** is the state of a system at a particular point in time. The term was coined as an analogy to that in photography. EaseUS Todo Backup monitors all the

changes from the last Snapshot point had been created. This snapshot point usually takes only seconds to be created. Snapshots offer the quickest way to restore a damaged Windows system to a working state.

System partition and Boot partition

Whenever a computer system is started, either from a cold boot using the power switch or a warm boot such as restarting the system from within Windows, there are certain files (for example: Ntldr) needed to boot (start) the computer. These boot files reside on the System partition. On dynamic disks, this is known as the system volume.

Once the boot files have been accessed and performed their function, the system files (the files that comprise the XP operating system) are accessed to complete the system start. The system files reside on the Boot partition. The boot partition can, but is not required, to be the same partition as the system partition.

Sector

Every track in hard disks can be subdivided into a number of sections. Each section is called a sector. Sectors are the smallest storage units on a hard drive. Each sector stores a fixed amount of user data. Typically a sector will hold 512 bytes of information.